



Micro Commercial Components  
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# FST10020 THRU FST100100

## Features

- Metal of siliconrectifier, majonty carrier conducton
- Guard ring for transient protection
- Low power loss high efficiency
- High surge capacity, High current capability

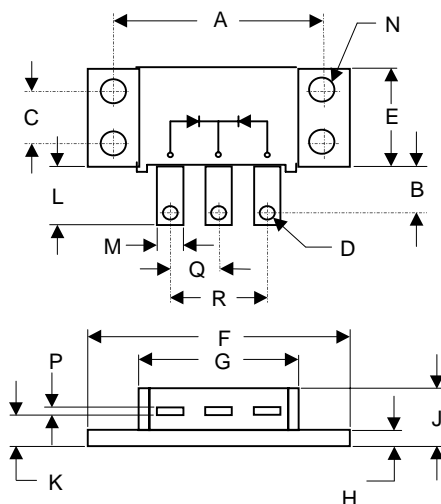
## 100 Amp Schottky Barrier Rectifier 20 to 100 Volts

## Maximum Ratings

- Operating Temperature: -65°C to +150°C
- Storage Temperature: -65°C to +150°C

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
FST10020	20V	14V	20V
FST10030	30V	21V	30V
FST10035	35V	24.5V	35V
FST10040	40V	28V	40V
FST10045	45V	31.5V	45V
FST10060	60V	42V	60V
FST10080	80V	56V	80V
FST110100	100V	70V	100V

## POWERMOD



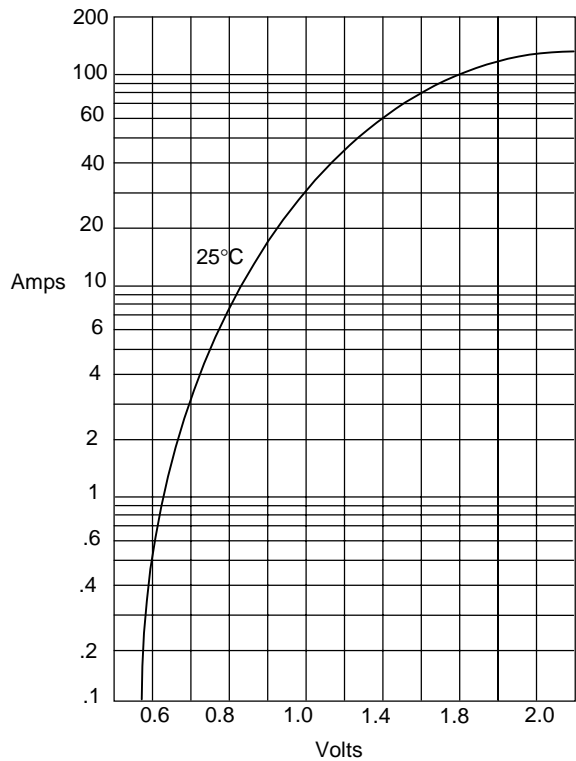
## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	100 A	$T_A = 85^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	1000A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$		$I_{FM} = 50.0A$ ; $T_A = 25^\circ\text{C}$
FST10020-10045		.63 V	
FST10060		.75 V	
FST10080-100100		.84 V	
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	2mA	$T_A = 25^\circ\text{C}$
Typical Junction Capacitance	$C_J$	300pF	Measured at 1.0MHz, $V_R=4.0V$

DIMENSIONS					
DIM	INCH ES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	1.995	2.005	50.67	50.93	
B	.330	.325	7.62	8.26	
C	.495	.505	12.57	12.83	
D	.182	.192	4.62	4.88	
E	.990	1.010	25.12	26.65	
F	1.490	1.510	37.85	38.35	
G	1.500	1.525	38.10	38.70	
H	.120	.130	3.05	3.30	
J	-----	.400	-----	10.16	
K	.240	.260	6.10	6.60	
L	.490	.510	12.45	12.95	Ø
M	.330	.350	8.38	6.90	
N	.175	.195	4.45	4.95	
P	.035	.045	0.89	1.14	
P	.445	.455	11.30	11.56	
P	.890	.910	22.61	23.11	

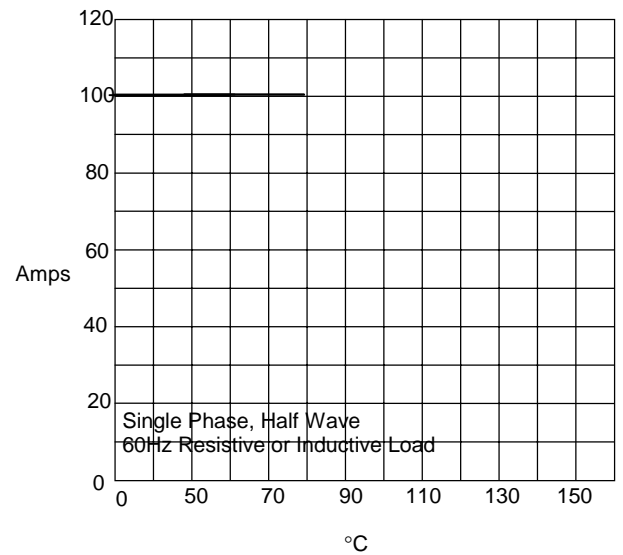
\*Pulse Test: Pulse Width 300µsec, Duty Cycle 1%

Figure 1  
Typical Forward Characteristics



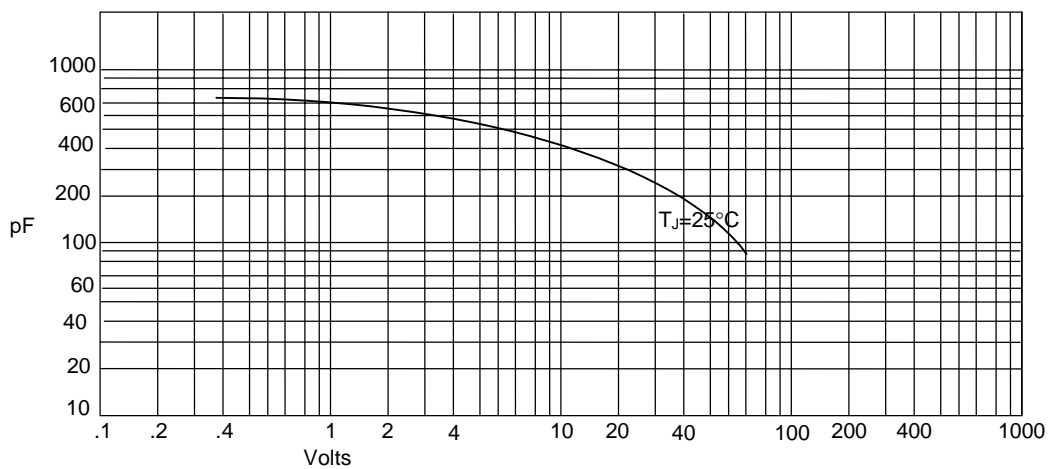
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus  
Ambient Temperature - °C

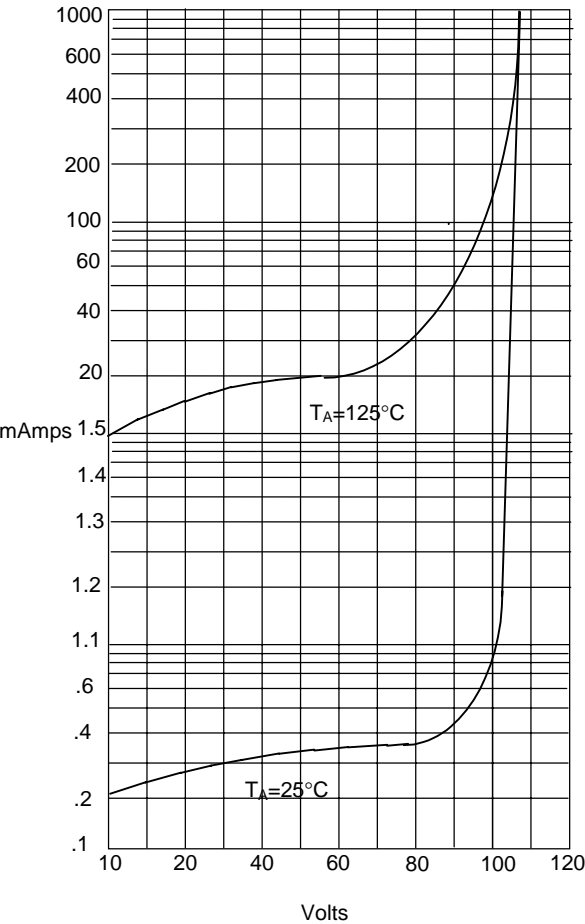
Figure 3  
Junction Capacitance



Junction Capacitance - pF versus  
Reverse Voltage - Volts

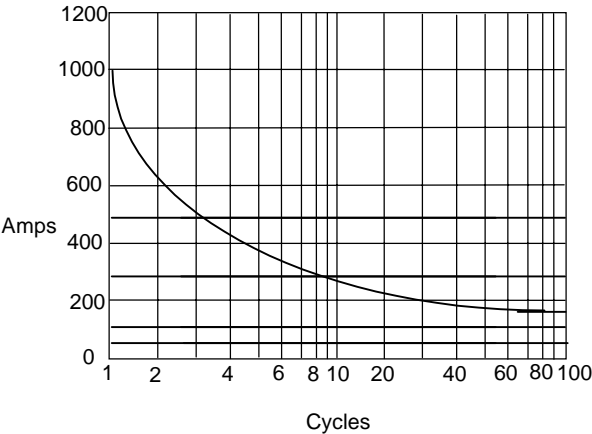


Figure 4  
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes *versus*  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 5  
Peak Forward Surge Current



Peak Forward Surge Current - Amperes *versus*  
Number Of Cycles At 60Hz - Cycles